UNITED STATES PATENT AND TRADEMARK OFFICE

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10/736,909	12/17/2003	Theodoros Salonidis	58501.00046	4027

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SQUIRE, SANDERS & DEMPSEY L.L.P.
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EXAMINER
KAO, JUTAI

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 March 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a)☐ All b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

Amendment made to claim 7 cures the problem addressed in previous 35 USC

101 rejection. Corresponding 35 USC 101 rejection of claim 7 is withdrawn.

Response to Arguments

1.   Applicant's arguments filed 03/13/2009 have been fully considered but they are

not persuasive.

Regarding rate feasibility

The applicant argued that previous claim rejections did not interpret the term

"feasible" consistent to the specification. However, the specification merely gave

exemplary characteristics of the term "feasible" (see "Feasible allocations may be

characterized...." as recited in paragraph [0064] of the specification). The specification

does not explicitly define the term feasible to include all the characteristics shown in the

described in the specification. Therefore, the examiner correctly interprets the term

"feasible" using the broadest reasonable interpretation as "usable" or "plausible".

Therefore, the current rejection, which uses a reserved bandwidth to read on the

claimed limitation of a "guaranteed feasible flow allocation, is correct, as a reserved

bandwidth must be usable by a flow. It is suggested for the applicant to include the

desired definition of terms in the claims if the claim is desired to be interpreted exactly

as suggested in the specification.

In addition, the term "feasible' was only used in the preamble of the claim and not repeated in the body of the claim. Therefore, no weight is required to be given to the term. Since definition of feasibility were not included in the claim and the term were not included in the body of the claim, any argument regarding rate feasibility are dismissed.

Regarding flow sharing a link

The applicant argues that previous rejection includes teaching that teaches multiple flows sharing a physical link while the specification of the current application is directed to flows sharing a logical connection instead of a physical one. However, this distinction is not made in the claim as the claim simply recites "a link". Therefore, the argument is not persuasive.

Regarding possible bandwidth adjustment

The applicant argues that previous rejection relies on an initiation process to teach to the bandwidth adjustment limitation. However, in the initiation process taught by the cited prior arts, adjustment is made to the status of the network as the connection is initialized. That is, the initialization of the bandwidth allocation is adjusted to the immediate status of the network instead of simply being initialized to a predetermined bandwidth value. In this sense, an adjustment is present in the initialization process.

Regarding notifying neighboring nodes

The applicant first argues that Galand fails to disclose a mutually-agreed upon optimal bandwidth allocation because Galand discloses a bandwidth reservation process in which the users do not have a say in what the bandwidth allocation should be. However, the bandwidth is nonetheless reserved without any disagreement by the user or any intermediate node. That is, the reservation is adopted by and used and must also be mutually agreed-upon whether or the user has a say or not. In addition, Fig. 1 does show that the reservation process is performed by first sending a request from the origin node to the end node, and allows all of the intermediate node and the destination node to decide whether to accept the call. Therefore, the reservation is indeed mutually agreed-upon.

The applicant then argues that Galand teaches that the optimal bandwidth allocation is broadcast to all nodes in the network instead of merely notifying the neighboring nodes. However, the claim only recites that the neighboring nodes need to be notified, instead of limiting the invention to notify "only" the neighboring nodes, as the applicant is currently arguing. Therefore, in broadcasting the information to all nodes in the network, the neighboring nodes are also notified in the process. Thus, Galand does indeed teach the claimed limitation.

Regarding motivation to look to a wired network in modifying a wireless network

The applicant argues that the claimed wireless network is more complicated than the wired network used in the secondary references. Therefore, one of ordinary skill in the art would not have looked to the wired network bandwidth reservation technique to

arrive at the claimed invention. However, the systems of the primary reference

(Kondylis) and the secondary references (Cousins and Galand) all deal with bandwidth

reservations. Therefore, it would have been obvious for one of ordinary skill in the art at

the time of the invention to look to a bandwidth reservation (that is, the primary and the

secondary references are directed to solve the same problem) that works well to modify

their system. Even though a wireless network may be more complicated in

implementation, it is still obvious to try what works in a wired network and implement the

method on a wireless network with reasonable expectation of success. In addition, the

applicant continues to argue that implementation of the bandwidth reservation technique

is more complicated in a wireless network. However, the claims are not directed to the

implementation of the system. The claim is simply directed to a series of negotiation

and notification steps. The idea of notifying and negotiating is common in any

communication network. Therefore, the argument is not persuasive.

Regarding repeating the steps

The applicant argues that Cousins merely disclose performing ongoing

calibration to read on the repeating of steps as recited in claim 2. However, the actual

text recites "the network initialization may continue in form of ongoing calibration…" as

recited in column 6, lines 19-26, in which the initiation process refers to the entire

process shown in Cousins in the rejection of claim 1. Therefore, the disclosure does

teach the claimed limitation of claim 2.

The examiner appreciates the insights regarding the invention provided in the argument. The argument helps the examiner in better understanding of the application. The provided arguments are good arguments if the teachings shown in the arguments are placed in the claims. It is recommended for the applicant to include these teachings within the claims to in order to push the prosecution further.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4.   Claim 1-2, and 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Kondylis (US 6,665,311) in view of Cousins (US 6,618,385) and Galand (US

6,628,670).

Kondylis discloses a method and apparatus for adaptive bandwidth reservation in

wireless ad-hoc networks including the following features.

Regarding claim 1, a method of allocating bandwidth (see "reserve bandwidth"

recited in column 6, line 17) in a first node (see "a set of transmitters...reserve

bandwidth" recited in column 6, line 16-17) that is operable in an ad hoc wireless

network (see "wireless ad-hoc network" in the title) configured to support at least one

guaranteed feasible flow allocation (see "adapt the reserved bandwidth according to

traffic fluctuation" recited in column 6, line 17-19; that is, guaranteed feasible because it

dynamically adapts").

Regarding claim 4, initiating a communication between the first node and the

second node (explained below in the rejection of claim 1 using Cousins) in a slotted

(see "ad-hoc nodes...timeslot reservation" recited in column 6, line 24-25), ad hoc,

wireless network (see "wireless ad-hoc network" in the title).

Regarding claim 6, a network device (see "a set of transmitters...reserve

bandwidth" recited in column 6, line 16-17) of allocating bandwidth (see "reserve

bandwidth" recited in column 6, line 17) in a first node (see "a set of

transmitters...reserve bandwidth" recited in column 6, line 16-17) that is operable in an

ad hoc wireless network (see "wireless ad-hoc network" in the title) configured to

support at least one guaranteed feasible flow allocation (see "adapt the reserved

bandwidth according to traffic fluctuation" recited in column 6, line 17-19; that is, guaranteed feasible because it dynamically adapts").

Regarding claim 7, a computer program embodied on computer-readable media (see "computer product" recited in the abstract), with the computer program configured to allocate bandwidth (see "reserve bandwidth" recited in column 6, line 17) in a first node (see "a set of transmitters...reserve bandwidth" recited in column 6, line 16-17) that is operable in an ad hoc wireless network (see "wireless ad-hoc network" in the title) configured to support at least one guaranteed feasible flow allocation (see "adapt the reserved bandwidth according to traffic fluctuation" recited in column 6, line 17-19; that is, guaranteed feasible because it dynamically adapts").

Regarding claim 8, a network device (see "a set of transmitters...reserve bandwidth" recited in column 6, line 16-17) of allocating bandwidth (see "reserve bandwidth" recited in column 6, line 17) in a first node (see "a set of transmitters...reserve bandwidth" recited in column 6, line 16-17) that is operable in an ad hoc wireless network (see "wireless ad-hoc network" in the title) configured to support at least one guaranteed feasible flow allocation (see "adapt the reserved bandwidth according to traffic fluctuation" recited in column 6, line 17-19; that is, guaranteed feasible because it dynamically adapts").

Kondylis does not disclose the following features: regarding claim 1, the method comprising the steps of: initiating a communication between the first node and a second node in the network that, together, are endpoints of a link, the communication being related to possible bandwidth allocation adjustment of a flow sharing the link;

determining, in the first node, a first new bandwidth allocation that approaches a first

optimization condition for the flow; communicating with the second node to determine a

mutually-agreed upon optimal bandwidth allocation for the flow; notifying neighbor

nodes in the network of the mutually-agreed upon optimal bandwidth allocation when

reallocation is needed; and adopting the mutually-agreed upon optimal allocation for the

flow when the reallocation is needed; regarding claim 2, re-performing the initiating,

determining, communicating, notifying, and adopting steps at a later point in time;

regarding claim 5, initiating a communication between the first node and the second

node in a network on which a Time Division Multiple Access (TDMA) schedule is

implemented; regarding claim 6, a first communication unit configured to initiate a

communication between the device and a node in the network that, together, are

endpoints of a link in the network, the communication being related to possible

bandwidth allocation adjustment of a flow sharing the link; a first processing unit

configured to determine a first new bandwidth allocation that approaches a first

optimization condition for the flow, wherein the first processing unit is operably

connected to the first communication unit; a second communication unit configured to

communicate with the node to determine a mutually-agreed upon optimal bandwidth

allocation for the flow, wherein the second communication unit is operably connected to

the first communication unit; a third communication unit configured to notify neighbor

nodes in the network of the mutually-agreed upon optimal bandwidth allocation when

reallocation is needed, wherein the third communication unit is operably connected to

the first communication unit; and a second processing unit configured to adopt the

mutually-agreed upon optimal allocation for the flow when reallocation is needed,

wherein the second processing unit is operably connected to the first communication

unit; regarding claim 7, the computer program comprising: a first sub-routine for

initiating a communication between the first node and a second node in the network

that, together, are endpoints of a link, the communication being related to possible

bandwidth allocation adjustment of a flow sharing the link; a second sub-routine for

determining, in the first node, a first new bandwidth allocation that approaches a first

optimization condition for the flow; a third sub-routine for communicating with the

second node to determine a mutually-agreed upon optimal bandwidth allocation for the

flow; a fourth sub-routine for notifying neighbor nodes in the network of the mutually-

agreed upon optimal bandwidth allocation when reallocation is needed; and a fifth sub-

routine for adopting the mutually-agreed upon optimal allocation for the flow when the

reallocation is needed; regarding claim 8, initiation means for initiating a communication

between the first node and a second node in the network that, together, are endpoints

of a link, the communication being related to possible bandwidth allocation adjustment

of a flow sharing the link; determination means for determining, in the first node, a first

new bandwidth allocation that approaches a first optimization condition for the flow;

communication means for communicating with the second node to determine a

mutually-agreed upon optimal bandwidth allocation for the flow; notification means for

notifying neighbor nodes in the network of the mutually-agreed upon optimal bandwidth

allocation when reallocation is needed; and adoption means for adopting the mutually-

agreed upon optimal allocation for the flow when the reallocation is needed

Cousins discloses a high performance, high bandwidth, and adaptive local area

network communications including the following features.

Regarding claim 1, initiating a communication between (see "two

machines...communicate..." recited in column 7, line 40-41) the first node (see "DTE

(sender)" recited in column 5, line 8) and a second node ("DCE (receiver)" recited in

column 5, line 8-9) in the network (see "two machines in the LAN" recited in column 7,

line 40-41) that, together, are endpoints of a link (DTE being the sender end and DCE

being the receiver end), the communication being related to possible bandwidth

allocation adjustment of a flow sharing the link (see "negotiation session ...to determine

the best use of the available bandwidth" recited in column 7, line 44-47); determining, in

the first node (see "designated DTE...determine the parameters..." recited in column 7,

line 15-16) , a first new bandwidth allocation (see "determine...optimized bandwidth,

and optimized transfer conditions" recited in column 3, line 44-46) that approaches a

first optimization condition for the flow (see "bandwidth...optimized given the condition

and quality of the line connection" recited in column 3, line 57-58); communicating with

the second node (see "DTE communicates with...DCE regarding the various

measurements...to determine the parameters..." recited in column 7, line 11-16) to

determine a mutually-agreed upon optimal bandwidth allocation for the flow (see

"determine the best use of the available bandwidth..." recited in column 7, line 46-47;

also "negotiation further includes reservation of...bandwidth" recited in column 7, line

49-50); and adopting the mutually-agreed upon optimal allocation for the flow when the

reallocation is needed (see "These parameters are then utilized..." recited in column 3,

line 52-53).

Regarding claim 2, re-performing the initiating, determining, communicating,

notifying, and adopting steps at a later point in time (see "network initialization process

may continue...ongoing calibration...may also be performed whenever there is a

changed condition..." recited in column 6, line 19-26; wherein the initialization process

includes all processes described above in the rejection made to claim 1, and the

notifying step is disclosed in Galand below, where the notifying step could be

incorporated into the initialization process described here).

Regarding claim 5, initiating a communication between the first node and the

second node in a network (explained above in the rejection made to claim 1) on which a

Time Division Multiple Access (TDMA) schedule is implemented (see "TDMA" recited in

column 10, line 45-50).

Regarding claim 6, a first communication unit (see "interface adapter 200 of the

designated DTE" recited in column 7, line 11) configured to initiate a communication

between (see "two machines...communicate..." recited in column 7, line 40-41) the

device (see "DTE (sender)" recited in column 5, line 8) and a node ("DCE (receiver)"

recited in column 5, line 8-9) in the network (see "two machines in the LAN" recited in

column 7, line 40-41) that, together, are endpoints of a link in the network (DTE being

the sender end and DCE being the receiver end), the communication being related to

possible bandwidth allocation adjustment of a flow sharing the link (see "negotiation

session ...to determine the best use of the available bandwidth" recited in column 7, line

44-47; a first processing unit (again, the DTE described above) configured to determine

a first new bandwidth allocation (see "determine…optimized bandwidth, and optimized

transfer conditions" recited in column 3, line 44-46) that approaches a first optimization

condition for the flow (see "bandwidth…optimized given the condition and quality of the

line connection" recited in column 3, line 57-58), wherein the first processing unit is

operably connected to the first communication unit (the DTE is connected to the DTE

adapter; see Fig. 2 "TO/FROM DTE" connection with the adapter 200); a second

communication unit configured (the DTE itself) to communicate with the node (see "DTE

communicates with…DCE regarding the various measurements…to determine the

parameters…" recited in column 7, line 11-16) to determine a mutually-agreed upon

optimal bandwidth allocation for the flow (see "determine the best use of the available

bandwidth…" recited in column 7, line 46-47; also "negotiation further includes

reservation of…bandwidth" recited in column 7, line 49-50), wherein the second

communication unit is operably connected to the first communication unit (the DTE

includes both units); and a second processing unit (the DTE itself) configured to adopt

the mutually-agreed upon optimal allocation for the flow when the reallocation is needed

(see "These parameters are then utilized…" recited in column 3, line 52-53), wherein

the second processing unit is operably connected to the first communication unit (the

DTE includes both units).

Regarding claim 7, a first sub-routine for initiating a communication between (see

"two machines…communicate…" recited in column 7, line 40-41) the first node (see

"DTE (sender)" recited in column 5, line 8) and a second node ("DCE (receiver)" recited

in column 5, line 8-9) in the network (see "two machines in the LAN" recited in column 7,

line 40-41) that, together, are endpoints of a link (DTE being the sender end and DCE

being the receiver end), the communication being related to possible bandwidth

allocation adjustment of a flow sharing the link (see "negotiation session ...to determine

the best use of the available bandwidth" recited in column 7, line 44-47); a second sub-

routine for determining, in the first node (see "designated DTE...determine the

parameters..." recited in column 7, line 15-16) , a first new bandwidth allocation (see

"determine...optimized bandwidth, and optimized transfer conditions" recited in column

3, line 44-46) that approaches a first optimization condition for the flow (see

"bandwidth...optimized given the condition and quality of the line connection" recited in

column 3, line 57-58); a third sub-routine for communicating with the second node (see

"DTE communicates with...DCE regarding the various measurements...to determine

the parameters..." recited in column 7, line 11-16) to determine a mutually-agreed upon

optimal bandwidth allocation for the flow (see "determine the best use of the available

bandwidth..." recited in column 7, line 46-47; also "negotiation further includes

reservation of...bandwidth" recited in column 7, line 49-50); and a fifth sub-routine for

adopting the mutually-agreed upon optimal allocation for the flow when the reallocation

is needed (see "These parameters are then utilized..." recited in column 3, line 52-53).

Regarding claim 8, initiation means (see "interface adapter 200 of the designated

DTE" recited in column 7, line 11) for initiating a communication between (see "two

machines...communicate..." recited in column 7, line 40-41) the first node (see "DTE

(sender)" recited in column 5, line 8) and a second node ("DCE (receiver)" recited in

column 5, line 8-9) in the network (see "two machines in the LAN" recited in column 7,

line 40-41) that, together, are endpoints of a link (DTE being the sender end and DCE

being the receiver end), the communication being related to possible bandwidth

allocation adjustment of a flow sharing the link (see "negotiation session …to determine

the best use of the available bandwidth" recited in column 7, line 44-47); determination

means (the DTE itself) for determining, in the first node (see "designated

DTE…determine the parameters…" recited in column 7, line 15-16), a first new

bandwidth allocation (see "determine…optimized bandwidth, and optimized transfer

conditions" recited in column 3, line 44-46) that approaches a first optimization condition

for the flow (see "bandwidth…optimized given the condition and quality of the line

connection" recited in column 3, line 57-58); communication means (the DTE itself) for

communicating with the second node (see "DTE communicates with…DCE regarding

the various measurements…to determine the parameters…" recited in column 7, line

11-16) to determine a mutually-agreed upon optimal bandwidth allocation for the flow

(see "determine the best use of the available bandwidth…" recited in column 7, line 46-

47; also "negotiation further includes reservation of…bandwidth" recited in column 7,

line 49-50); and the adoption means for adopting the mutually-agreed upon optimal

allocation for the flow when the reallocation is needed (see "These parameters are then

utilized…" recited in column 3, line 52-53).

Galand discloses a method and system for sharing reserved bandwidth between

several dependent connections in high-speed packet switching networks including the

following features.

Regarding claim 1, notifying neighbor nodes in the network of the mutually agreed upon optimal bandwidth allocation when reallocation is needed (see "in case of call acceptance, the modified link metrics…sent to…each node in the network by means of a broadcast algorithm" recited in column 10, lines 40-65).

Regarding claim 6, a third communication unit (see "origin (access) node 100" recited in column 10, line 53; which is equivalent to the DTE in Cousins) configured to notify neighbor nodes in the network of the mutually-agreed upon optimal bandwidth allocation when reallocation is needed (see "in case of call acceptance, the modified link metrics…sent to…each node in the network by means of a broadcast algorithm), wherein the third communication unit is operably connected to the first communication unit (the origin node/DTE includes both units).

Regarding claim 7, a fourth sub-routine for notifying neighbor nodes in the network of the mutually agreed upon optimal bandwidth allocation when reallocation is needed (see "in case of call acceptance, the modified link metrics…sent to…each node in the network by means of a broadcast algorithm).

Regarding claim 8, notification means for notifying neighbor nodes in the network of the mutually agreed upon optimal bandwidth allocation when reallocation is needed (see "in case of call acceptance, the modified link metrics…sent to…each node in the network by means of a broadcast algorithm).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Kondylis by using the features, as taught by Cousins and Galand, in order to provide efficient use of bandwidth between two nodes; and in

order to provide intermediate nodes with essential information regarding bandwidths to

be allocated to the particular link.

5.   Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kondylis

(US 6,621,805) in view of Cousins (US 6,618,385) and Galand (US 6,628,670) as

applied to claim 1 above, and further in view of Counterman (US 6,724,727).

Kondylis in view of Cousins and Galand discloses the claimed limitations

described above. Kondylis in view of Cousins and Galand do no disclose the following

features: regarding claim 3, determining, in a first node, a first new bandwidth allocation

that approaches at least one of a Max Min Fair condition and a Quality of Service

guarantee condition.

Counterman discloses a policy-based forward error correction in packet networks

including the following features.

Regarding claim 3, determining, in a first node, a first new bandwidth allocation

(explained above in the rejection made to claim 1 using Cousins) that approaches at

least one of a Max Min Fair condition and a Quality of Service guarantee condition (see

"allocates bandwidth…in order to satisfy the QoS objectives…" recited in column 1, line

63-65).

It would have been obvious to one of the ordinary skill in the art at the time of the

invention to modify the system of Kondylis, Cousins and Galand by using the feature, as

taught by Counterman, in order to enhance the service quality to the end users.

Conclusion

6.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to JUTAI KAO whose telephone number is (571)272-9719.

The examiner can normally be reached on Monday ~Friday 7:30 AM ~5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kwang Yao can be reached on (571)272-3182. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ju-Tai Kao

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